

## CLAIMS

We claim:

- 1 1. A method for preventing or treating Sinusoidal Obstruction Syndrome ("SOS") comprising administering a matrix metalloproteinase ("MMP") inhibitor.
- 2 2. A method for preventing or treating chemotherapy- or radiation-induced liver disease comprising administering a matrix metalloproteinase ("MMP") inhibitor.
- 1 3. The method of claim 2, wherein said chemotherapy-induced liver disease includes SOS, nodular regenerative hyperplasia, peliosis hepatitis, immunosuppression-induced hepatic venoocclusive disease, and sinusoidal dilatation.
- 1 4. The method of claims 1 or 2, wherein said MMP inhibitor is doxycycline or 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid.
- 1 5. The method of claim 4, wherein said MMP inhibitor is doxycycline.
- 1 6. The method of claim 5 wherein 15 mg/kg of said doxycycline is administered twice daily. *564-25-0*
- 1 7. The method of claim 4, wherein said MMP inhibitor is 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid.
- 1 8. The method of claim 7 wherein 100-200 mg/hour of said 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid is administered.
- 1 9. The method of claims 1 or 2 wherein said MMP inhibitor is administered for up to 4 weeks. *154039-60-8*
- 1 10. The method of claims 1 or 2, wherein said MMP inhibitor is Marimastat, *17633-21-5* Prinomastat, RS-130,830, CGS 27023A, Solimastat, BAY 12-9566, Ro 32-3555, *15866-40-7* BMS-272591, Ilomastat, D2163, Metastat, Neovastat, or Periostat. *305838-27-1*
- 1 11. A method for preventing or treating chemotherapy or radiation induced liver disease comprising administering an effective dose of a matrix metalloproteinase ("MMP") inhibitor selected from doxycycline or 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid.
- 1 12. The method of claim 11, wherein said MMP inhibitor is doxycycline.
- 1 13. The method of claim 12, wherein 15 mg/kg of said doxycycline is administered twice daily.

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✓ 14. The method of claim 11, wherein said MMP inhibitor is 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid.

15. The method of claim 14, wherein 100-200 mg/hour of said 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid is administered.

16. A method for preventing or treating chemotherapy or radiation induced liver disease comprising administering 15 mg/kg of doxycycline twice daily.

17. A method for preventing or treating chemotherapy or radiation induced liver disease comprising administering 100-200 mg/hour of 2-[(4-biphenylsulfonyl)amino]-3-phenyl-propionic acid.